CC Docket No. 94-102 – January 2004 E911 Interim Report

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Date: January 15, 2004

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By Electronic Submission:

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TIER III CARRIER INTERIM REPORT
AS OF JANUARY 2004
CC Docket No. 94-102

Keystone Wireless, L.L.C. ("Keystone") hereby submits its E911 Interim Report, pursuant to *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, Phase II Compliance Deadlines for Non-Nationwide CMRS Carriers,* CC Docket No. 94-102, FCC 02-210, released July 26, 2002 (*Non-Nationwide Carrier E911 Order)*, *Public Notice*, DA 03-2113, released June 30, 2003, and *Order to Stay*, FCC 03-241, released October 10, 2003.

Carrier Identifying Information:

Carrier Name: Keystone Wireless, L.L.C. – FRN 0007 4157 06

E911 Compliance Officer: James Williams
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Bonita Springs, FL 34134

E911 Implementation Information:

Keystone is a small wireless carrier serving only rural or other less-densely populated areas. Keystone hereby reports as follows:

- Keystone has received only one Phase I request and no Phase II requests. Keystone has obtained and installed all of the network equipment and software necessary to meet the PSAP's Phase I request, has installed a landline between the switch and the requesting PSAP for Phase I deployment, and is compliant. Keystone did not encounter any problems in meeting the PSAP's request.

- Keystone had elected to employ a handset-based solution compatible with the GSM technology of Keystone's PCS network. However, as discussed below, due to the failure of handset manufacturers to meet their earlier promises regarding handset availability, that position is evolving.

- Keystone has installed all of the necessary network equipment for Phase I E911 deployment. Keystone has experienced and anticipates it will continue to experience significant problems with its Phase II E911 deployment. Specifically, Keystone elected to use a handset-based solution for its E911 deployment, because it was the only attainable solution, either technically or financially. However, the vendor of Keystone's GSM handsets, Nokia, advised Keystone in July of 2003, that there would be no Phase II-compliant GSM handsets forthcoming, now or in the foreseeable future.

  Keystone is unable to switch to a traditional network-based solution because, as previously reported, it is technically impossible. For a network-based solution to function, a handset must be located within the reliable service area of at least three cell sites simultaneously (or

two cell sites, if angle of arrival techniques ("AOA") are used), in order to triangulate the position of the handset. Keystone operates only in less densely populated areas where the cell sites are spread far apart and there is little overlap between two cells and even less overlap among three cells. Only a minor portion of Keystone's service area is potentially susceptible to triangulation techniques; the bulk of the service area is not susceptible to triangulation and Keystone could never meet the accuracy levels set forth in Section 20.18 of the Commission's rules, *i.e.*, accuracy within 300 meters 95% of the time on a system-wide basis.

However, Keystone was recently advised that Nortel is developing a hybrid network/handset-based technology for Phase II E911, which Keystone tentatively plans to implement. This technology involves a two-step process for full Phase II deployment. The first step requires implementation of a network-based solution that enables greater ALI capability on the part of the carrier and the PSAP without resort to any special handsets. This is only an interim solution and is not fully Phase II compliant. Installation of this network-based technology would provide a level of accuracy better than Phase I, but short of Phase II. The second step requires the distribution and use of special "assisted-GPS" ("A-GPS") handsets, which are currently not available. The addition of these A-GPS handsets would make this hybrid solution fully Phase II compliant. Nortel has scheduled tests with A-GPS GMS handsets for the first quarter of 2004. Nortel suggests that such A-GPS handsets could begin to be commercially available to small Tier III carriers by the fourth quarter of 2004; however, whether such availability occurs in that time frame is beyond Keystone's control.

Keystone has informed the PSAPs in its market area of its tentative plan to implement this hybrid Phase II E911 solution, assuming that the initial tests prove out, and of the specifics of the two-step implementation process.[1] Notably, Keystone has never received a Phase II request. The price quote Keystone received from Nortel for this hybrid solution is exceedingly high, but Keystone is currently seeking funding to allow it to implement this solution. Specifically, Keystone is discussing the possibility of vendor financing with Nortel, and Keystone is investigating the possibility of obtaining government cost-recovery funding to cover all or a portion of the required expenditures.

- Keystone attempted to obtain ALI-capable GSM handsets prior to the October 1, 2002 deadline. After the handset vendors repeatedly delayed development of such units, they finally admitted no such handsets are going to be developed.

- For the reasons discussed above, Keystone does not anticipate that Phase II service will be available in its network in the near future, but anticipates that it could begin to become available, in part, by the last quarter of 2004. Keystone anticipates that full Phase II service would be available in its network by December 2006. Keystone has a request pending with the Commission for a waiver of the Phase II requirements in the meantime.

- With regard to meeting the ultimate implementation date of December 31, 2005, see above.

[1] It is not financially prudent to invest in the network-based portion of this "hybrid" solution without first knowing whether the handset-based portion will work, because if it fails there would be no capital available to purchase any alternative technology.